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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,418	08/20/2003	David E. Whithead	1444-0083	8060
7590	05/30/2007		EXAMINER	
David M Mundt Cook Alex McFarron Manzo Cummings & Mehler Ltd 200 West Adams Street Suite 2850 Chicago, IL 60606		CORRIELUS, JEAN B		
		ART UNIT		PAPER NUMBER
		2611		
		MAIL DATE		DELIVERY MODE
		05/30/2007		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/645,418	WHITEHEAD ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Jean B. Corrielus	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 April 2007.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_\_ is/are rejected.
- 7) Claim(s) 1-13 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/25/07.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 4/25/07 has been entered.

### ***Claim Objections***

2. Claims 1-13 are objected to because of the following informalities: claim 1, lines 3-5 suggest that the "input" is suitable for ensuring accurate time-of-day clock synchronization while in fact it is "the encoded time signal" that is suitable for ensuring accurate time-of-day clock synchronization. Such objection can be overcome by amending claim 1, lines 3-5 as follow: "**an input for receiving said externally generated encoded time signal [input]** suitable for ensuring accurate time-of-day clock synchronization, wherein the time signal covers a predetermined time period" The limitations recited in claim 9, lines 3-5, do not appear to be an apparatus type limitations. The claim, as per the preamble is directed to a system. Accordingly, the claim lacks of actual structure to perform the intended claimed limitations. In addition line 3, "an externally encoded time signal" should be replaced by "said externally

encoded signal" so as to make use of antecedent in line 2. In addition, the objection of claim 9 can be overcome by amending the claim in the same manner suggested above with respect to claim 1. If so, the body of the claim should be amended in such a way as to be consistent with the preamble or vice versa. Claim 9, line 3, "ensuring" is mistyped as "insuring". Claim 9, line 8, "a selected operation" should be replaced by "said selected operation" so as to make use of antecedent in line 1. The claim recited a "selected operation" in line 1 and line 8, however, the claim does not set forth what operation is being selected. Similar comment applies to similar limitations, recited in claim 12. Note that any claim whose base claim is objected, is likewise objected. Appropriate correction is required.

***Specification***

3. Applicant's response has overcome the objection to the specification.

***Allowable Subject Matter***

4. Claims 1-13 would be allowable if amended to overcome the objection set forth above.

***Conclusion***

5. This application is in condition for allowance except for the formal matters noted above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

***Response to Amendments***

6. Applicant argues that the goal as set forth in the preamble of claim 1 to "synchronous sampling of analog inputs" is addressed in the last element of the claim. Therefore, examiner assumes that the last element of the claim performs synchronous sampling of **analog signals** to output a **sampling synchronization signal**". Applicant argues that IRIG-B signal is well known and needs not to be expanded. Therefore the objection has been withdrawn.

***Response to Arguments***

7. Applicant's arguments filed 4/25/07 have been fully considered but they are not persuasive. Applicant stated that he is unaware of any requirements that system claims must be limited to hardware. Note that the MPEP, for instance section 2172.01, clearly states that a device includes elements (hardware)

*A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. In re Mayhew, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). See also MPEP § 2164.08(c). Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant(s) as necessary to practice the invention.*

*In addition, a claim which fails to interrelate essential elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112,*

*second paragraph, for failure to point out and distinctly claim the invention. See In re Venezia, 530 F.2d 956, 189 USPQ 149 (CCPA 1976); In re Collier, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968). >But see Ex parte Nolden, 149 USPQ 378, 380 (Bd. Pat. App. 1965) ("[I]t is not essential to a patentable combination that there be interdependency between the **elements of the claimed device or that all the elements operate concurrently toward the desired result**"); Ex parte Huber, 148 USPQ 447, 448-49 (Bd. Pat. App. 1965) (A claim does not necessarily fail to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes.).*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Jean B Cornelius*  
Jean B Cornelius  
Primary Examiner  
Art Unit 2611

5-24-07